


Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2236	SERIAL NO. 10/609,311			
 <p>LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)</p>				APPLICANT: Donald L. Yates				
				FILING DATE June 26, 2003	GROUP 2811 1754			
U.S. PATENT DOCUMENTS								
Examiner's Initials	Class	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate	
WJ	AA	3,349,474	12/1963	D. H. Rauscher	458	10		
	AB	5,904,517	05/1999	Gardner et al.	438	197		
	AC	5,998,264	12/1999	Wu	438	260		
	AD	6,180,465 B1	01/2001	Gardner et al.	438	291		
	AE	6,207,485 B1	03/2001	Gardner et al.	438	216		
WJ	AF	6,548,854 B1	04/2003	Kizilyalli et al.	257	310		
	AG							
WJ	AH	2003/0045060 A1	03/2003	Ahn et al.	438	287		
WJ	AI	2003/0045078 A1	03/2003	Ahn et al.	438	585		
FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
WJ	AN	EP 0 851 473 A2	01/1998	EPO			X	
	AK							
	AL							
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)								
WJ	AM	Chang et al., Silicon surface treatments in advanced MOS gate processing, Microelectronic Engineering, (2004), pages 130-135						
WJ	AN	Lemberger et al., Electrical characterization and reliability aspects of zirconium silicate films obtained from novel MOCVD precursors, Microelectronic Engineering (2004), pages 315-320						
WJ	AO	Lu et al., Effects of the TaN _x interface layer on doped tantalum oxide high-k films, VACUUM (2004), pages 1-9						
EXAMINER		DATE CONSIDERED						
WJ		4/27/05						
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>								

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2236		SERIAL NO. 10/609,311	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT: Donald L. Yates			
				FILING DATE June 26, 2003		GROUP 2811-1754	

OFFICE
 OCT 27 2004
 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS							
Examiner's Initials		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AJ						
	AK						
	AL						

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
wz	AM		Robertson et al., Atomic structure, band offsets, growth and defects at high-K oxide:Si interfaces, Microelectronic Engineering (2004) pages 112-120
wz	AN		Singh et al., High and Low Dielectric Constant Materials, The Electrochemical Society <i>Interface</i> , Summer 1999, pages 26-30
	AO		

EXAMINER 	DATE CONSIDERED <div style="font-size: 1.5em; font-family: cursive;">4/27/05</div>
--------------	---

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2236	SERIAL NO. 10/609,311
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin-right: 10px; text-align: center;"> O I P E AUG 30 2004 PATENT & TRADEMARK OFFICE </div> <div> LIST OF ART CITED BY APPLICANT (Use several sheets if necessary) </div> </div>				APPLICANT: Donald L. Yates	
				FILING DATE June 26, 2003	GROUP 2811 1756

U.S. PATENT DOCUMENTS							
Examiner's Initials	Class	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	4,086,074	04/78	Minot et al.	438	61	
	AB	4,622,735	11/86	Shibata	438	303	
	AC	4,683,645	08/87	Naguib et al.	438	530	
	AD	4,693,910	09/87	Nakajima et al.	257	647	
	AE	4,766,090	08/88	Coquin et al.	438	222	
	AF	5,099,304	03/92	Takemura et al.	427	168	
	AG	5,236,865	08/93	Sandhu et al.	438	297	
	AH	5,444,024	08/95	Anjum et al.	438	143	
nmj	AI	5,470,784	11/95	Anjum et al.	65	31	

FOREIGN PATENT DOCUMENTS								
Class	Subclass	Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
		AJ						
		AK						
		AL						

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
nmj	AM		ABSTRACT: Basceri et al., Atomic Layer Deposition for Nanoscale CU Metalization, 10 pages (pre-April 2004).
nmj	AN		En et al., Plasma immersion ion implantation reactor design considerations for oxide charging, 85 SURFACE AND COATINGS TECHNOLOGY 64-69 (1966).
nmj	AO		Ku et al., The Application of Ion Beam Mixing, Doped Silicide, and Rapid Thermal Processing of Self-Aligned Silicide Technology, 137 J. Electrochem. Soc. No. 2, pp. 728-740 (February 1990).

EXAMINER 	DATE CONSIDERED 4/27/05
--------------	----------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2236		SERIAL NO. 10/609,311	
<div style="position: relative; height: 100px;"> <div style="position: absolute; top: 10px; left: 10px; font-size: 2em; transform: rotate(-15deg);">2/30/04</div> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); text-align: center;"> LIST OF ART CITED BY APPLICANT (Use several sheets if necessary) </div> </div>				APPLICANT: Donald L. Yates			
				FILING DATE June 26, 2003		GROUP 2811 1754	

U.S. PATENT DOCUMENTS							
*Examiner's Initials	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
	AA	5,670,298	09/97	Hur	430	318	
	AB	6,037,239	03/00	Jennings	438	430	
	AC	6,096,621	08/00	Jennings	438	404	
	AD	6,130,140	10/00	Gonzalez	438	430	
	AE	6,133,105	10/00	Chen et al.	438	296	
	AF	6,133,116	10/00	Kim et al.	438	430	
	AG	6,156,674	12/00	Li et al.	438	780	
	AH	6,177,235 B1	01/01	Francou et al.	430	313	
	AI	6,281,100 B1	08/01	Yin et al.	438	585	
FOREIGN PATENT DOCUMENTS							
Document Number	Date	Country	Class	Subclass	Translation		
					Yes	No	
AJ							
AK							
AL							
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	AM	ABSTRACT: How to Eliminate Voiding in Porous-Low-k Dielectrics and The Mechanism of Void Formation; Lin et al.; 4 pages					
	AN	COB Stack DRAM Cell Technology beyond 100 nm Technology Node; Yongjik Park & Kinam Kim; pp. 349.1 - 349.3;					
	AO	Rubin et al., Shallow-Junction Diode Formation by implantation of Arsenic and Boron Through Titanium-Silicide Films and ..., 17 IEEE Transactions on Electron Devices, No. 1, pp. 183-190 (January 1990).					
EXAMINER:		DATE CONSIDERED: 4/27/05					
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2236		SERIAL NO. 10/609,311	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT: Donald L. Yates			
				FILING DATE June 26, 2003		GROUP 2811 1754	

2/30/04

U.S. PATENT DOCUMENTS							
*Examiner's Initials	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate	
<div style="font-size: 2em;">/</div>	AA	6,277,709 B1	08/01	Wang et al.	438	430	
	AB	6,277,728 B1	08/01	Ahn et al.	438	619	
	AC	6,291,363 B1	09/01	Yin et al.	438	769	
	AD	6,380,611 B1	04/02	Yin et al.	257	649	
	AE	6,383,723 B1	05/02	Iyer et al.	430	327	
	AF	6,440,793 B1	08/02	Divakaruni et al.	438	243	
	AG	6,465,325 B2	10/02	Ridley et al.	438	428	
	AH	6,720,638 B2	04/04	Tran	257	499	
<div style="font-size: 2em;">✓</div>	AI	6,780,728	08/04	Tran	438	243	

FOREIGN PATENT DOCUMENTS							
Document Number	Date	Country	Class	Subclass	Translation		
					Yes	No	
AJ							
AK							
AL							

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
	AM		
	AN		
	AO		

EXAMINER	DATE CONSIDERED
<div style="font-size: 1.5em;">/</div>	<div style="font-size: 1.5em;">4/27/05</div>

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2236		SERIAL NO. 10/609,311	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT: Donald L. Yates			
				FILING DATE June 26, 2003		GROUP 281T 154	

7/30/04

U.S. PATENT DOCUMENTS							
*Examiner's Initials	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
	AA	2001/0006759 A1	07/01	Shipley, Jr. et al.	430	280.1	
	AB	2002/0076879 A1	06/02	Lee et al.	438	241	
	AC	2002/0196651 A1	12/02	Weis	365	100	
	AD	2003/0013272 A1	01/03	Hong et al.	438	437	
	AE						
	AF						
	AG						
	AH						
	AI						

FOREIGN PATENT DOCUMENTS							
Document Number	Date	Country	Class	Subclass	Translation		
					Yes	No	
AJ							
AK							
AL							

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
AM			
AN			
AO			

EXAMINER 	DATE CONSIDERED 4/27/05
--------------	----------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2236		SERIAL NO. 10/609,311	
<div style="position: relative; height: 40px;"> 7/39/04 </div> <p>LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)</p>				APPLICANT: Donald L. Yates			
				FILING DATE June 26, 2003		GROUP 2811 1756	


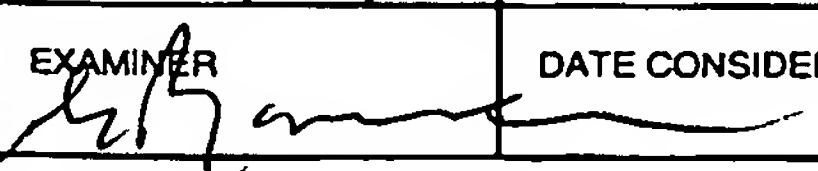
U.S. PATENT DOCUMENTS							
Examiner's Initials	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
<div style="position: relative; height: 100px;"> 7/39/04 </div>	AA	10/655,997	Daley			09/03	
	AB	10/689,958	Basceri			10/03	
	AC	10/690,029	Derderian et al.			10/03	
	AD	10/882,118	Sandhu et al.			04/04	
	AE	10/879,367	Blalock et al.			06/04	
	AF						
	AG						
	AH						
	AI						

FOREIGN PATENT DOCUMENTS							
Document Number	Date	Country	Class	Subclass	Translation		
					Yes	No	
AJ							
AK							
AL							

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)			
AM			
AN			
AO			

EXAMINER 	DATE CONSIDERED 4/27/05
--------------	----------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2236	SERIAL NO. 10/609,311		
<div style="float: left; width: 150px; text-align: center;">  </div> <div style="clear: both;"></div> <p>LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)</p>				APPLICANT: Donald L. Yates			
				FILING DATE June 26, 2003	GROUP 2811 1754		
U.S. PATENT DOCUMENTS							
*Examiner's Initials	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
W7	AA	10/932,218	Basceri et al.			09/04/2004	
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
FOREIGN PATENT DOCUMENTS							
	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
AJ							
AK							
AL							
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	AM						
	AN						
	AO						
EXAMINER		DATE CONSIDERED					
		4/27/05					
<small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							

Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
MI22-2236SERIAL NO.
10/609,311LIST OF ART CITED BY APPLICANT
(Use several sheets if necessary)

APPLICANT: Donald L. Yates

FILING DATE
June 26, 2003

GROUP

2811 1756

U.S. PATENT DOCUMENTS

Examiner's Initials		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
Wm	AA	6,753,618	06/2004	Basceri et al.	257	915	
	AB	5,470,794	11/1995	Anjum et al.	437	200	
	AC	2003/0219942 A1	11/2003	Choi et al.	438	253	
	AD	2004/0245560 A1	12/2004	Pontoh et al.	257	309	
	AE	2004/0245559 A1	12/2004	Pontoh et al.	257	306	
	AF	2004/0046197 A1	03/2004	Basceri et al.	257	296	
	AG	2004/0043228 A1	03/2004	Derderian et al.	428	446	
	AH	2003/0213987 A1	11/2003	Basceri et al.	257	296	
Wm	AJ	2003/0205729 A1	11/2003	Basceri et al.	257	200	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AJ							
	AK							
	AL							

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

	AM		
	AN		
	AO		

EXAMINER

DATE CONSIDERED

4/27/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

EV372471444